

8.13 VISUAL RESOURCES

Visual resources are the natural and cultural features of the landscape that can be seen and that contribute to the public's enjoyment of the environment. Visual resource or aesthetic impacts are generally defined in terms of a project's physical characteristics and potential visibility and the extent to which the project will change the perceived visual quality of the environment in which it will be located.

This section was prepared following CEC guidelines for preparing visual impact assessments for AFCs. Section 8.13.1 documents the visual conditions that currently exist in the Pico Power Project (PPP) area. Section 8.13.2 discusses the potential environmental effects as they relate to visual resources. Section 8.13.3 discusses the potential cumulative impacts of this and other projects in the area. Section 8.13.4 summarizes the mitigation measures proposed to reduce project impacts on visual resources. Section 8.13.5 proposes mitigation measures. Section 8.13.6 describes the Laws, ordinances, regulations, and standards (LORs). Section 8.13.7 discusses required permits. Section 8.13.8 lists the references used in preparation of this section.

Figure 8.13-1 shows the location of the site and the locations of the Key Observation Points (KOPs) referenced in this section. Figure 8.13-2 shows the locations and view directions of visual character photos that are included as Figures 8.13-3a and-3b (eight photographs). The existing views and project simulations follow as Figures 8.13-4 through 8.13-9. All illustrations in this section are bound together at the end of the section for reader convenience. These include maps, visual simulations from KOPs and photographs showing the visual character of the area.

8.13.1 Affected Environment

8.13.1.1 Regional Setting

The PPP site lies within the City of Santa Clara, in the Santa Clara Valley, approximately one-half mile northwest of the San Jose International Airport (Figure 8.13-1). The physical setting is a sloping alluvial plain located at the southern end of San Francisco Bay. The project region is drained by the Guadalupe River, about a mile east of the site, Coyote Creek, and other creeks. The City of Santa Clara is bordered by San Jose to the north, east, and south and Sunnyvale and Cupertino to the west. To the south and west of the valley is the Santa Cruz Mountain Range and to the east is the Diablo Mountain Range. The valley between the mountain ranges is flat, mostly urbanized with a concentration of high technology industries. The project area is generally flat, sloping at a gradient of 5 feet in approximately 1,500 feet towards San Francisco Bay to the north. For example, the site is at an elevation of 32 feet, while the intersection of Central Expressway and Lafayette Street, approximately 1,000 feet south of the project site, is at 40 feet elevation.

The project site is located immediately south of the Bayshore Freeway (Highway 101) within an industrial belt bounded to the south by the Union Pacific Railroad and to the north by Highway 101. Land within the industrial corridor has been developed at different levels of land use intensity. Tire companies, warehouses, mini-storage businesses, fabrication shops, industrial storage facilities, electrical substations, and office supply stores are located within the industrial corridor.

The site is zoned Public/Quasi-Public. Land to the south and east is zoned for heavy industry while land to the west is zoned light industrial (see Section 8.6 Land Use). Land north of Highway 101 is zoned for light and heavy industrial use. There are mini-storage facilities immediately north of the site across Duane Avenue and immediately east, across Lafayette Street. Large buildings housing

telecommunications equipment (telephone, fiber optic, and internet service centers) are located on adjacent parcels immediately north and west of the Pico site, and across Lafayette Street to the east. Immediately south of the site is the SVP Kifer Receiving Station. Farther west is the SVP Scott Receiving Station and an industrial park with a variety of uses, mostly high technology. Southeast of the site, on the east side of Lafayette Street are a tire warehouse, City maintenance storage yard, and a sheet metal company. Many of the mini-storage, manufacturing, and warehouse facilities are relatively new, one-story tilt-up structures in an industrial park-like setting. South of Central Expressway, at Lafayette Street is the Owens Corning fiberglass insulation manufacturing plant. The latter is a massive structure several stories tall, with a number of exhaust stacks on its roof.

Street trees have been planted along both sides of Lafayette Street, from the Central Expressway north to the Highway 101 overpass, and there is extensive landscaping around parking areas along the east side of Lafayette Street. The planting along Lafayette Street creates a sense of visual continuity, establishes visual enclosure, and softens the visual impact of the view of Kifer Receiving Station and the project site as seen by northbound drivers on Lafayette Street. Figure 8.13-4a (KOP 1 existing view) looking north on Lafayette Street at the intersection of Central Expressway and Lafayette Street, shows a typical view of the existing landscape character along Lafayette Street adjacent to the project site. Although much of the industrial development is low profile in appearance, there are several dominant vertical structures near the site and numerous transmission poles and lines along both sides of Lafayette Street. Tubular steel transmission poles and conductors run down both sides of the Pico right-of-way, east of the Kifer Receiving Station. There are also wooden poles carrying communication lines along the west side of Lafayette Street, from Duane Avenue to Comstock Road. Also, there are two 115 kV transmission towers along the west side of Lafayette Street, south of the site. Transmission lines cross over Lafayette Street in two locations, south of Duane Avenue, continuing east, north of Comstock Road, and south, along the east side of Lafayette Street. Figure 8.13-5a (KOP 2 existing view) shows a typical view of the site and surroundings traveling south on Lafayette Street at the intersection Lafayette Street and Duane Avenue. From this KOP, the eastern portion of power plant site is open and visible while the western portion of the site is almost completely screened from view by a large grove of elm trees.

8.13.1.2 Project Site and Linear Corridors

Power Plant Site and Natural Gas Compressor Station

The 2.86-acre power plant site is generally level and at the same elevation as the surrounding parcels. Most of the site is undeveloped land that is part of the existing substation, maintenance yard, and parking area. The portion of the site along Lafayette Street is open lot with ruderal vegetation. There is a line of mature evergreen elm trees, approximately 170 feet long and 30 feet wide, adjacent to the west side of the project site. There are also additional smaller elms on-site along Duane Avenue, and acacias and silk trees at the south end of the eastern portion of the site along Lafayette Street. Since none of the trees belong to native species, they are not considered heritage trees. As noted in Section 8.2, Biological Resources, there are no heritage trees or special-status plant species observed on-site, and the site is not considered a sensitive natural resource.

The two most important visual corridors are from Lafayette Street and Highway 101. The largest number of viewers will be traveling on Highway 101, with an Average Daily Traffic (ADT) of 181,000 vehicles/day in the south bound lanes. The Central Expressway, south of the project site, has the second largest number of viewers, with an ADT of 34,000 vehicles/day in the east bound lane. Lafayette Street, immediately east of the site, has the third largest number of viewers with an ADT of 23,300 vehicles/day

in the south bound lane (personal communication, Gerry Willmier, Traffic Department, Santa Clara County, CA, June 28, 2002). The project site is most easily seen from Lafayette Street.

The gas compressor equipment for the project will be sited on a 0.26-acre parcel at the corner of Comstock and Lafayette Streets, 500 feet southwest of the power plant site, within the City's current utility yard. The gas compressor equipment will be housed in a small, roofed building, measuring approximately 85 x 80 feet.

Natural Gas Pipeline and Metering Station

Silicon Valley Power will construct a new 12-inch gas supply pipeline, approximately 2.0 miles long, from the corner of Gianera Street and Wilcox Avenue, south along Lafayette Street to Basset Street, south on Basset to Laurelwood Road, under the Bayshore Freeway to Duane Avenue, and from Duane Avenue into Lafayette Street to the compressor station at Comstock Street and Lafayette Street, then back across Lafayette Street to the project site. The pipeline route is shown on Figure 5.1-1 and is discussed in detail in Section 5.

The gas pipeline will require a metering station that will encompass 30 x 60 feet of space. This will be located, as described in Section 5, in the open area between Gianera Street and the Hetch Hetchy Aqueduct right-of-way. This open area is a pedestrian and bicycle passageway between a high density residential area and a sound wall to the Union Pacific Railroad and its surroundings.

Waste Water Discharge Pipeline

The project will construct a waste water discharge pipeline from the project site south in Lafayette Street to the sanitary sewer main in Central Expressway.

Electric Transmission System

The project will not require new transmission lines. Instead, the power plant will connect directly to the Kifer Receiving Station from its own substation. The project will, in effect, intercept the Scott-Kifer 115 kV transmission line by connecting this line into the PPP substation, which will, in turn, connect directly to the Kifer Receiving Station. Two other transmission lines that currently make use of the PPP project site will also be intercepted. These will be placed underground between the PPP Substation and power plant so that the PPP can make use of the PPP site. This will involve removing one existing steel lattice tower and replacing it with two single pole towers. In addition, SVP will move an existing wooden-pole, 60 kV transmission line from the east-central portion of the project site (in former Pico Way) to the eastern project border, along Duane Avenue and Lafayette Street.

8.13.1.3 Potential Project Site Visibility

The visibility of a power plant within an intensely developed urban area is determined by topography, building coverage, and heights of buildings surrounding the site.

One mile was chosen as the boundary of the visual study because of the intensity of industrial development surrounding the site and the fact that all freeways, major intersections, streets, and overpasses were within a one-mile radius of the project site. A study of the power plant visibility was conducted through an analysis of aerial photographs, initial engineering drawings of the power plant, extensive field observations, and an analysis of photographs taken from key viewpoints. Key viewpoints were viewpoints from freeways, major streets, and major intersections and overpasses within a one-mile radius of the site. These views were selected where buildings, existing vegetation, transmission towers, and other structures did not block views of the site.

Since the project area is extensively built with large one- and two-story buildings, the bulk of the project will only be viewable from short distances and through two or three view corridors. The stacks are relatively tall structures (95 feet), the tops of which may be seen from a greater distance, particularly from elevated viewpoints. Generally speaking, the project will be visible for travelers coming north on Lafayette Street from Central Expressway and from the Lafayette Street overpass to the Bayshore Freeway. The project will also be viewable through a corridor to its northwest, through Raymond Street, to the Bayshore Freeway, and beyond to Laurelwood Road, which fronts the Bayshore Freeway. Three of the Key Observation Point simulations (KOPs 3, 4, and 5) simulate views from different viewing groups in this corridor. These are commuters on Laurelwood Road and residents at 1425 Laurelwood Road (apartments), travelers on the Bayshore Freeway, and commute and delivery traffic on Raymond Street.

From the west, existing buildings on Space Park Drive will block the view entirely. The project site will be visible from some locations southwest of the project on Space Park Drive. In these views, however, the project will be blocked by several large trees and by the Kifer Receiving Station. From due south, along Comstock Street and Central Expressway, views of the project are blocked by the Kifer Receiving Station and other buildings, except in the Lafayette Street corridor. Buildings block views at ground level from the east beyond Lafayette Street. The stacks will be visible, however, from the De La Cruz Boulevard overpass to the Bayshore Freeway, approximately 0.48 miles east of the project site. North of the Bayshore Freeway, views of the project in the Lafayette Street corridor are entirely blocked by a three-story building.

8.13.1.4 Sensitive Viewing Areas and Key Observation Points

To assess the potential visual impacts of PPP facilities on visual resources, the view areas most sensitive to potential visual impacts were identified and, in consultation with CEC staff, six KOPs were selected for detailed analysis. Photographic simulations of the completed PPP facility were developed for each KOP as a basis for identifying the project potential visual effects. Since the natural gas and water pipelines will be underground and not visible, these project components were not discussed in the evaluation of the visibility of the project site from the KOPs.

The following factors were considered when evaluating the sensitivity of the viewing areas potentially impacted by the project: 1) distance of the viewer to the site; 2) number of viewers, 3) duration of the view; and 3) viewer sensitivity, including viewer activity (commute, recreational, residential). The potentially sensitive viewing areas selected for visual analysis are shown in Figure 8.13-1 and views from each of the KOPs are discussed below.

Discussion of the views seen from the KOPs includes ratings of the relative visual quality of the landscapes. These ratings were developed based on on-site observations completed during the months of June through August 2002; review of photos of the area; review of local planning documents; review of methods for assessment of visual quality; and review of research on public perception of the environment and scenic quality ratings of landscape scenes. The final assessment of the visual quality of the views from each of the KOPs was made based on professional judgement, considering a variety of landscape assessment factors. Factors considered included an evaluation of:

- Natural scenic features, including topography, water courses, and natural vegetation
- Positive and negative effects of man-made alterations and structures on visual quality
- Visual composition, including assessment of the complexity and vividness of patterns in the landscape

- Spatial organization

The relevance of these factors for landscape evaluation has been established by landscape perception and assessment research over the past 20 years. Based on these considerations, a group of landscape scholars at Virginia Technical University (Buhyoff et al. 1994) developed landscape quality ratings; specifically, the six landscape quality classes listed in Table 8.13-1. This scale provides a strong framework for qualitative ratings because it is based on findings of the full range of available research on the ways in which the public evaluates visual quality. In addition, the scale has a common-sense quality and is easily understood because it defines landscape quality in relative terms, contrasting landscapes that are low, below average, average, above average, high, and outstanding in visual quality.

Table 8.13-1. Landscape visual quality scale used in rating project area viewsheds.

Rating¹	Explanation
Outstanding Visual Quality	A rating reserved for landscapes with exceptionally high visual quality. These landscapes are significant nationally or regionally. They usually contain exceptional natural or cultural features that contribute to this rating. They are what we think of as “picture post card” landscapes. People are attracted to these landscapes to view them.
High Visual Quality	Landscapes that have high quality scenic value. This may be due to cultural or natural features contained in the landscape or to the arrangement of spaces contained in the landscape that causes the landscape to be visually interesting or a particularly comfortable place for people. These are often landscapes that have high potential for recreational activities or in which the visual experience is important.
Moderately High Visual Quality	Landscapes that have above average scenic value but are not of high scenic value. The scenic value of these landscapes may be due to man-made or natural features contained within the landscape, to the arrangement of spaces in the landscape or to the two-dimensional attributes of the landscape.
Moderate Visual Quality	Landscapes that have average scenic value. They usually lack significant man-made or natural features. Their scenic value is primarily a result of the arrangement of spaces contained in the landscape and the two-dimensional visual attributes of the landscape.
Moderately Low Visual Quality	Landscapes that have below average scenic value but not low scenic value. They may contain visually discordant man-made alterations, but the landscape is not dominated by these features. They often lack spaces that people will perceive as inviting and provide little interest in terms of two-dimensional visual attributes of the landscape.
Low Visual Quality	Landscapes with low scenic value. The landscape is often dominated by visually discordant man-made alterations; or they are landscapes that do not include places that people will find inviting and lack interest in terms of two-dimensional visual attributes.
¹ Rating scale based on Buhyoff et al. 1994.	

KOP 1—Intersection of Central Expressway & Lafayette Street

Figure 8.13-4a represents the view of the project site as seen from KOP 1. This KOP is at the intersection of Central Expressway and Lafayette Street looking north on Lafayette Street, approximately 1,000 feet from the site. This viewpoint was selected because it represents the typical view of a driver on the

Central Expressway, either at the intersection of Central Expressway and Lafayette Street traveling north, or turning right onto Lafayette Street and starting to travel north. Many drivers will see the site from this view because both the Central Expressway and Lafayette Street have a high volume of traffic.

The visual quality of this view is low to moderately low, since there are numerous visually discordant man-made elements that dominate the view. These include the Kifer Receiving Station and 115 kV transmission crossing Lafayette Street from west to east in front of the viewer at Comstock Avenue. The driver is viewing the site from a distance and the project site is partially screened from view by the Kifer Receiving Station. The project is surrounded by industrial development, including the massive Owens Corning fiberglass insulation factory at the southwest corner of Lafayette Street and Central Expressway. This structure is very tall (50-70 feet) and contains large storage silos and exhaust stacks, which impart an industrial appearance.

Most of the viewers using Lafayette Street and Central Expressway are commuters who are accustomed to seeing industrial facilities and, therefore, are not highly sensitive to changes in the visual character of the landscape, particularly changes that are consistent with the existing uses. The sensitivity of this view is thus low to moderately low due to the large number of viewers, the distance to the site, the short duration of the view, the character of the area surrounding the site, and the low sensitivity of the viewers.

KOP 2—Lafayette Street & Duane Avenue

Figure 8.13-5a represents the view from KOP 2, which was selected because it represents the typical view of a driver traveling south on Lafayette Street, approaching the project site. The viewpoint is at the northeast corner of Lafayette Street and Duane Avenue, approximately 60 feet northeast of the project site property line. This view of the site is open and unobstructed, without existing visual distractions. Due to the high volume of traffic on Lafayette Street, a large number of viewers will see the site from this viewpoint. The viewers are mainly drivers traveling south on Lafayette Street who have crossed over Highway 101, obtained a glimpse of the site from the U.S. 101 overpass, and now see the site in the foreground to their right.

The ADT for Lafayette Street is 23,300 vehicles per day in the southbound lanes. Although the site will be seen by many viewers who are very close to the site, the sensitivity of most of these viewers will be low, as the viewers are mostly commuters in the industrial corridor. A majority of the viewers will only obtain a short glimpse of the site. The visual quality is low to moderately low, due to the dominance of visually discordant man-made elements, such as the Kifer Receiving Station, large steel lattice transmission towers and transmission lines connecting to the Kifer station, the ministorage facility at Lafayette Street and Duane Avenue, and large office and industrial buildings. Only a small number of drivers turning right on to Duane Avenue will have an extended view of the power plant. Most will continue south past the project.

KOP 3—1425 Laurelwood Road

The KOP 3 viewpoint (Figure 8.13-6a) was selected because it represents the typical view of the project site as seen by the nearest viewer within a residential complex. This KOP is at 1425 Laurelwood Road, approximately 2050 feet northwest of the site. The building is a motel that has been converted into apartments, with ten rooms for low income housing. Figure 8.7-2 (Location 4) includes a photograph of this complex. Laurelwood Road fronts to the Bayshore Freeway, and the project will be seen through the chain-link right-of-way fence, across the freeway, and through the Raymond Street corridor to the project's northwest corner. This viewpoint was also selected because it represents the typical view of a driver traveling southeast on Laurelwood Road. The visual quality from this viewpoint is low, due to the

proximity to and visibility of the Bayshore Freeway from Laurelwood, and the presence of disparate industrial buildings along Laurelwood.

From this KOP, only a brief view of the PPP site can be obtained, between bands of shrubs along Laurelwood Road and between buildings along the south side of Highway 101. Laurelwood Road has a low traffic volume of 7,400 vehicles per day in the southeast bound lane. Residents who rent rooms at the apartment complex drive into parking stalls at an angle to Laurelwood Road, and leave by a loop road that intersects Laurelwood Road farther northwest. It is unlikely that residents leaving the complex will clearly see the site since shrub planting next to the fence along Laurelwood Road tends to screen the project site from view. Residents will only see the site if they walked out of their apartment to their car or walked southeast down Laurelwood Road.

Both residents and drivers will most likely be workers in the local area who are accustomed to seeing industrial facilities and are not sensitive to changes in the visual character of the landscape. The sensitivity of this view is low due to the small number of viewers, sensitivity of the viewers, great distance to the site, presence of the Bayshore Freeway in the viewshed to the project, short duration of the view, and industrial character of the area.

KOP 4—Bayshore Freeway, Highway 101

The KOP 4 viewpoint (Figure 8.13-7a) was selected because it best represents the typical view of the project site as seen by a driver traveling southeast on Highway 101. This viewpoint is from the lane farthest south on the freeway, approximately 1,000 feet north of the site, directly opposite the intersection of Raymond Street and Duane Avenue. The viewer on the freeway can glimpse the project for a short distance through a visual corridor that opens up in Raymond Street (see also KOPs 3 and 5). In this view, the site is partially screened by existing trees and large, industrial buildings to the west of the site. There are many visual distractions in this view, such as existing trees, light poles, 115 kV transmission towers with lines crossing overhead, and shrubs in the foreground. The visual quality in this view is low to moderately low, because it is a view from a freeway, through adjacent fencing towards a mixture of disparate industrial buildings. Though the duration of view will be brief due the speed at which cars travel the freeway, this is an important view to consider, because of the high volume of traffic on the Bayshore Freeway (181,000 ADT).

The sensitivity of this view is moderately low despite the number of viewers, due to the numerous distractions, short duration of the view, distance to the site, and low sensitivity of the viewers. Most drivers will be accustomed to seeing industrial development along the freeway, and therefore they will not be sensitive to visual change in the landscape.

KOP 5—Raymond Street

This viewpoint (Figure 8.13-8a, KOP 5) was selected because it represents the typical view of the power plant as seen by a driver traveling east on Raymond Street towards Space Park Drive, and is the only view where the project site can be seen from the industrial development west of the site. This viewpoint is at the northwest corner of Space Park Drive and Raymond Street, approximately 350 feet northwest of the project site.

Only a small number of drivers will view the site from this viewpoint since Space Park Drive and Raymond Street have the least traffic volume of any streets in the area (1800 vehicles/day). The visual quality of the existing view could be classified as low to moderately low. The surrounding light industrial area contains large buildings with some landscaping. The sensitivity of this view is considered to be low

because there are a small number of viewers and these viewers are either commuters or delivery vehicle drivers. There are few windows in adjacent buildings that face the power plant in this location.

KOP 6—Lafayette Street Overpass to Highway 101, Southbound

The view (Figure 8.13-8a, KOP 6) was selected because it best represents the typical view of the project site, as seen by a driver traveling south on Lafayette Street at the elevated overpass above Highway 101. This viewpoint taken is from the lane farthest west, on the overpass, viewing southwest, approximately 500 feet from the power plant site. The view of the power plant site at this point is open and unobstructed. The view is of short duration, however, as the driver negotiates the curve to the west towards Duane Avenue.

The visual quality of this view can be considered to be low to moderately low due to the low scenic value of the landscape, the numerous visually discordant man-made elements and the domination of these elements. Several low profile mini-storage units are prominent in the foreground. Billboards, flags, existing transmission towers and lines, large industrial buildings, as well as the Kifer Receiving Station are visually distracting to the viewer.

Most of the drivers using Lafayette Street are commuters who are accustomed to seeing industrial facilities and manufacturing plants and not highly sensitive to changes in the visual character of the landscape. There is little pedestrian use of this overpass. The sensitivity of this view is thus low to moderately low, due to the great distance to the site, visually disruptive elements, surrounding industrial development, limited viewing time and low sensitivity of the viewers.

8.13.2 Environmental Consequences

8.13.2.1 Analysis Procedure

This analysis of visual impacts potentially caused by the PPP is based on field observations and review of the following information: local planning documents, project maps and drawings, photographs of the project area, and computer-generated visual simulations for each of the KOPs.

Photographs are presented to represent the before-project conditions from each KOP. Visual simulations were produced to illustrate the project site after construction from viewpoints, providing the viewer with a clear image of the location, scale, and visual appearance of the proposed project. The “before” photos and the simulations of the “after” conditions are presented as pairs for comparison. The computer-generated simulations are the result of an objective analytical and computer modeling process described briefly below.

Site reconnaissance was conducted to view the site and surrounding area, to identify potential key viewpoints, and to take photographs of existing visual conditions. The corners of the cooling tower structure were staked out in the field, and identified by colored helium balloons. These markers were used for proper positioning the visual simulations into the photographs. A single lens reflex (SLR) 35 mm camera with a 50 mm lens (view angle 40 degrees) was used to photograph the site. Computer modeling and rendering techniques were used to produce the simulation images. Existing topographic and site data provided the basis for developing an initial digital model. Project engineers provided site plans and elevations of the power plant and the transmission system. These were used to create three-dimensional (3-D) digital models of these facilities. These models were combined with the digital site model to produce a complete computer model of the generating facility.

For each viewpoint, a viewer location was digitized from topographic maps and scaled aerial photographs, using five feet as the assumed viewer eye level. Computer “wire frame” perspective plots were then overlaid on the photographs of the views from the KOPs to verify scale and viewpoint location. Digital visual simulation images were produced as a next step based on computer renderings of the 3-D model combined with high-resolution digital versions of base photographs. The final “hardcopy” visual simulation images that appear in this document were produced from the digital image files using a color printer. The images produced here are in 8.5 x 11-inch size. At the request of CEC Staff, the Applicant has provided 11 x 17-inch copies of these same existing views and simulations to Staff. Staff use these views to obtain a more real looking image of the actual project appearance since, when held at approximately 18 inches, views of this size more closely approximate the true scale of the project appearance to the eye on site than does a smaller image.

8.13.2.2 Significance Criteria

Analysis of the project impacts was based on evaluation of the potential effect of changes to the existing viewsheds that will result from construction and operation of the PPP. An important aspect of this analysis was evaluation of the “after” views provided by the computer-generated visual simulations, and their comparison to the existing visual environment. When making a determination of the effects of the visual changes, consideration was given to:

- The extent to which the affected environment contains places or features that have been designated in plans and policies for protection or special consideration
- The numbers of viewers, their activities, and the extent to which these activities are related to the aesthetic qualities affected by the likely changes
- The specific changes in the affected visual environment's composition, character, and any specially valued visual qualities
- The affected visual environment context

Determination of whether the project visual effects would be “significant” under the provisions of the California Environmental Policy Act (CEQA), were made in reference to Appendix G of the State CEQA Guidelines. The CEQA Guidelines define a “significant effect” on the environment to mean a “substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including objects of historic or aesthetic significance” (14 CCR, § 15382). Appendix G of the Guidelines, under Aesthetics, lists the following four questions for lead agencies to address:

- Would the project have a substantial adverse effect on a scenic vista?
- Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?
- Would the project substantially degrade the existing visual character or quality of the site and its surroundings?
- Would the project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

8.13.2.3 Project Appearance

Power Plant Site

The design and arrangement of the 122 MW natural gas-fired combined-cycle generating facility and electrical switchyard area are described in detail in Chapter 2.0, Project Description. Figures 2.2-1 and 2.2-2 are site plans that show the layout of the power plant, Administration Building, and Switchyard on the site. Figures 2.2-3a and 2.2-3b illustrate typical elevation views of the facilities. Table 8.13-2 summarizes the equipment dimensions of the power plant major components.

Architectural Design

The oblique aerial rendering of the project found in Section 1, Figure 1.1-1, shows a general aerial view of the power plant facilities. Silicon Valley Power has designed the power plant so that the project will visually blend with surrounding facilities.

The placement of the two-story 33-foot-high plant operations building, 24-foot-high demineralized storage tank, and other smaller structures on the eastern edge of the site will create a transition in scale between Lafayette Street and the larger project structures to the west. The Plant Operations Building will have a low profile, hip roof design with a rectangular floor plan. The low-profile design coupled with light-colored walls and reddish roof will blend with the adjacent buildings in the mini-storage area, and will be consistent with the City of Santa Clara architectural guidelines for industrial districts. The transformers to the north and east of the Operations Building will be screened by concrete walls colored to match the Operations Building. The water storage tanks south of the Operations Building will be a non-reflective neutral color.

The 62-foot-high x 126-foot-long cooling tower structure will be a neutral color. The block-like form of the structure will be relieved by horizontal bands. The east side of the structure, facing Lafayette Street and Duane Avenue, will have horizontal bands of a darker color while the perimeter of the structure will have a continuous row of darker panels.

The two LM 6000 natural gas turbine generators and associated equipment, west of the cooling tower structure, will be aligned in a row adjacent to each other and partially screened by the cooling tower structure. The equipment ramps up from north to south so that the highest structures, the exhaust stacks, will be farthest south and adjacent to the existing substation. The combustion turbine generator housing, at the north end of the site, has a low design profile. The heat recovery steam generator housing will ramp up from the turbine generator to the exhaust stacks. It has an accordion-style “ribbed” appearance and a neutral color that will enable it to visually blend with the turbine generator and rotor housing. The 95-foot-high exhaust stacks, immediately south of the gas turbine generators, will be a non-reflective neutral color to blend with surrounding equipment and will be as unobtrusive as possible. The 26-foot-high pipe and cable tray structure will be hidden in between the two LM 6000 gas turbine generators.

The new switchyard structure, 50-feet high x 140-feet long at the west end of the site, will be low profile in design. The steel framework will be constructed on a grid system with circuit breakers and transformers in between the structural framework. All equipment will be a neutral color to match and blend in with the existing substation structures to the south and the natural gas-fired turbine generators and equipment adjacent to the switchyard.

Table 8.13-2. Pico Power Plant equipment dimensions.

Feature	Height (feet)	Width (feet)	Length (feet)	Diameter (feet)
HRSG Units				
HRSG casings	53	28	40	N/A
HRSG Transition Duct	15-52	20	55	N/A
To lower operating decks	60	N/A	N/A	N/A
To top of highest drums	75	N/A	N/A	N/A
To top of highest operating decks	75	N/A	N/A	N/A
To top of highest relief valves and vent silencers	44	N/A	N/A	N/A
HRSG stacks	95	N/A	N/A	16
Gas Combustion Turbines (GE LM6000)				
Gas combustion turbines	20	14	56	N/A
Generator Housing	15	14	36	N/A
Steam Turbine Generator				
STG enclosure	57	22	20	N/A
Condenser	18	15	40	N/A
Cooling Tower (3 cells)			basin = 56	30 (ea. cell)
To top of parapet				
Top of cooling tower structure	52	42	126	N/A
Ammonia Storage Tank	13	15	40	N/A
Top of cones	62	30	30	30
Water Chiller	15	21	36	N/A
Buildings/Equipment along Duane Avenue				
Operations Building	33	68	90	N/A
4.8v Auxiliary Power Transformers	14	18	40	N/A
4.18kv Auxiliary Power Transformers	20	10	20	N/A
Demineralized water storage tank	24	N/A	N/A	24
Reverse Osmosis System (RO)				N/A
Air Compressors	10	10	20	N/A
Mobile RO Water System (Trailers) System	45	8	12	N/A
RO System piping (RO Units)	24	6	6	N/A
Cable Tray Bridge	25.5	8	180	N/A
Natural Gas Compressor Station	15	80	85	N/A
Switchyard				N/A
Step-up transformers	20	15	15	N/A
Circuit breakers	11	10	15	N/A
Switchyard Relay House	10	18	30	N/A
Switchyard bus structures	34	30	140	N/A
Conductor take-off structures	50	N/A	N/A	N/A
New 115 kV tubular steel tower	85	N/A	N/A	N/A

Screening Structures

The following are the location and height of walls used to reduce the sound of equipment operation. These structures also help to screen the project from view:

- Along north side of the Power Plant – 25 feet
- Along west side of the project site – 15 feet
- Along northeast side of project site – 20 feet
- Around eastern portion of power plant – 8 feet

Landscaping

Landscaping will be limited around the perimeter of the power plant due to minimum setbacks and noise attenuation walls along the property lines. There will be no landscaping along the north and west sides of the site since a 25-foot-high wall will be constructed along the north property line and a 15-foot-high wall constructed along the west side of the site. City of Santa Clara architectural design requirements require construction of perimeter walls around all sides of projects within an Industrial zone; therefore, 8-foot-high perimeter concrete walls will be installed around the eastern portion of the site. Landscaping will be installed within the setback and right-of-way area along Duane Avenue and Lafayette Street for security and to reduce the visual impact of the power plant buildings and structures. The landscaping area will be approximately 25 feet wide along Duane Avenue and 20 feet wide along Lafayette Street. Within the right-of-way area, standard street trees will be planted to comply with the requirements of the City zoning ordinance and to provide for a continuation of the industrial corridor tree canopy. The canopy created by the street trees will partially block views of the power plant structures from the streets. In addition, evergreen shrubs and vines will be planted in back of and in between trees along Duane Avenue and Lafayette Street to create an established landscape appearance and reduce the visual impact of walls and fencing. All landscaping will be drought tolerant. Twenty-four inch box trees and five gallon shrubs will be planted in conformance with the City architectural standards for projects in an Industrial District. No landscaping will be installed along the south side of the power plant adjacent to the existing Kifer Receiving Station.

Lighting

The PPP will require nighttime lighting for operational safety and security. To reduce any off-site impacts of this requirement, lighting at the facility will be restricted to areas required for safety, security, and operation, and will be turned off in areas where personnel are not present. Exterior lights will be hooded, and lights will be directed on-site so that no significant light or glare will be dispersed or reflected onto adjacent properties. Fixtures of a non-glare type will be specified.

Natural Gas Compressor Station

The gas compressor equipment will be housed in a small, one-story, roofed building, measuring approximately 85 x 80 feet. This building will be designed to meet City architectural standards for exterior treatment and roofing. Visually, it will be somewhat similar to the existing former fire station that is located immediately to the north.

Natural Gas Pipeline and Waste Water Discharge Pipelines

The design and layout of the natural gas line and waste water discharge pipelines that will be constructed to serve this project are described in Sections 5.0 and 7.0, respectively. The new natural gas pipeline will be underground and will follow existing streets. It will start at the intersection of Gianera Street and

Wilcox Avenue, go down Lafayette Street, then turn south down Bassett Street, pass under Highway 101, and then south down Duane Avenue to the gas compressors at the northeast corner of Lafayette Street and Comstock Drive.

Existing asphalt paving and excavated soil will be stockpiled along the route. The trench will be 3 feet wide by 6 to 8 feet deep. After the gas pipeline is installed, trenches will be filled and compacted, and streets repaved and restriped. In areas where the piping will cross under vegetation, trenches will be filled and compacted, covered with imported topsoil, and replanted with the same species of plants. Since the new natural gas pipeline will be installed underground and surface conditions will be restored after trenching and construction, installation of the pipeline will not impact visual resources.

During construction, the area along the right-of-ways will only be temporarily disrupted by machinery, excavated piles of soil, construction vehicles, and other minor visual disturbances associated with pipeline construction. These visual impacts will be minor and temporary and not significant.

Waste water discharge will be a maximum of 500,000 gallons per day (gpd). The water supply source will be reclaimed/recycled water from the San Jose/Santa Clara Water Pollution Control Plant. There is an existing 24-inch recycled water line located in the middle of the site (abandoned Pico right-of-way) that will meet the operational demand of the power plant. All waste water will be discharged into the City of Santa Clara sanitary sewer system, through a new pipeline in Lafayette Street to Central Expressway.

A small demineralized water storage tank, 24 feet high and 24 feet in diameter, will be installed south of the Operational Building. In addition, various equipment associated with the usage of recycled water through the RO system will be installed next to the water tank and screened from view by the perimeter wall. Two mobile demineralized water system trailers or pods will be parked in the lot west of the water storage tank.

Natural Gas Metering Station

The metering facility is a 30 x 60-foot area where the gas pipeline daylights to a gas meter and access tap. It will be located between the existing bike path to the east and the existing residential fence to the west. The bike path will need to be partially realigned to the east to accommodate the metering facility. One of the two following options would be used for mitigating access and security concerns regarding the metering site:

- Constructing 6-foot-high walls (20 feet by 40 feet) around the metering facility that would blend in with surrounding development.
- Installing a new security fence around the facility, with a gate to allow vehicle access from Gianera Street. Landscaping is planned to help the facility blend in with its surroundings.

Electrical Transmission System

An existing 85-foot-high 115 kV lattice tower currently located in the middle of the site will be removed, and overhead lines from Kifer Receiving Station to the tower will be replaced by tubular steel towers and underground lines. Six overhead 115 kV lines, three lines for the Kifer-Newark transmission line and three lines for the Kifer-San Jose B transmission line, will leave the substation, travel underground to the northwest corner of the project site, connect with a new 85-foot-high tubular steel transmission pole, and then connect with existing 115 kV overhead lines. In addition, three overhead 115 kV lines will start at Kifer Receiving Station, connect with the new switchyard, and then connect with a new 50-foot-high tubular steel pole north of the switchyard (see simulation from KOP 5, Figure 8.13-8b). From this pole, the lines will connect with an existing tubular steel transmission line pole at the west property line, which

has existing lines that connect with Scott Receiving Station, approximately one-half mile to the west. In addition, the existing 60 kV wooden transmission poles and lines running in the former Pico Way will be relocated to the eastern project boundary (along Duane Avenue and Lafayette Street) to permit construction of the power plant.

The new switchyard structures will be painted a neutral finish that will minimize their reflectivity and visually blend with the light colors of the adjacent power plant structures. The new transmission line structures will minimize their reflectivity and help reduce their contrast with the sky backdrop and nearby industrial buildings.

Construction Laydown and Worker Parking Areas

As described in detail in Section 2.2.15, construction of the project from site preparation to commercial operation is expected to take place during a 19-month period extending from the summer of 2003 to the winter of 2004. During the construction period, four areas will be used for laydown of equipment and parking for construction workers.

One of the laydown areas consists of a 0.4-acre vacant area within the fence surrounding Scott Receiving Station on Space Park Drive 0.25 miles west of the Pico site. This area is directly north of the substation and is entirely graveled or paved.

A second area is approximately 1.5 acres available at the existing Kifer Receiving Station currently used as a storage area for electrical equipment. There is extensive shrub planting along the outside of the existing chain link fence at the south end of the Kifer Receiving Station. This dense shrub planting will help screen equipment and vehicles from view along Comstock Street.

A third site is a 0.4-acre area at the maintenance facility owned by the City of Santa Clara at the northeast corner of Comstock Street and Lafayette Street. The laydown area will be within an existing parking lot, east of the City of Santa Clara building on Lafayette Street, that is screened from view from Lafayette Street and Comstock Street by existing buildings and fences.

The fourth area is a 1.9-acre vacant lot adjacent to SVP's Brokaw Substation. Views of this location are blocked from the east by the Federal Express facility and from the north by the Costco Store and the Brokaw Substation. The site will be visible from the De La Cruz railroad overpass to the west and northwest, and from the back side of apartments located across the Union Pacific railroad tracks south of the parcel.

Visible Plumes

The process of condensing the steam used in generating power in the steam turbine generator can cause the formation of visible water vapor plumes above the cooling tower during periods of cold weather and high humidity. To eliminate this effect, the PPP will employ a special plume-abated cooling tower design that will eliminate visible plumes except during the most extreme cold weather. This technology is referred to as a plume-abated cooling tower, which incorporates an air-cooled or "dry" heat exchanger section along with the conventional wet evaporative cooling section. The dry heat exchanger typically consists of finned tubes, with the warm circulating water passing through the tubes and the ambient cooling air passing over the exterior finned surface of the tubes. The combination of evaporative and non-evaporative heating results in reduction of the relative humidity of the air leaving the plume-abated cooling tower. Since the relative humidity is reduced below the saturation point, the water vapor in the plume will not condense before it mixes with the drier ambient air and therefore will not be visible.

Plume abatement capability for a maximum allowable plume length is specified to be effective for any condition less severe than the winter design point, defined by the ambient dry bulb temperature, relative humidity, cooling range, circulating water flow rate, and maximum and minimum cold water temperatures. The specific design conditions for the PPP will be developed to provide the plume abatement capability to restrict plume formation to so visible plumes occur only under the most extreme meteorological conditions. Water vapor plumes from the exhaust stacks will not be visible with the design being used for the heat recovery steam generators except under very limited circumstances.

8.13.2.4 Assessment of Visual Effects

The following section assesses the project's potential effects on visual resources by analyzing the visual changes that would occur at each key observation point. Table 8.13-3 summarizes this analysis.

Table 8.13-3. Summary of the Key Observation Point visual effects analysis.

KOP	Location	Visual Quality	Viewer Sensitivity	View Duration (driving)	Visual Contrast	Visual Dominance	Significant adverse Impact?
1	Lafayette and Central, view north	Low to moderately low	Low, commuter	Moderate	Low to moderate	Low	No
2	Duane and Lafayette, view west	Low to moderately low	Low, commuter	Brief	Low to moderate	High	No
3	Laurelwood Road, view southeast	Low	Low to high, commuter/residential	Brief to moderate	Low	Low	No
4	Highway 101, southbound, view southeast	Low to moderately low	Low, freeway	Very brief	Low to moderate	Low	No
5	Raymond Street, view southeast	Low to moderately low	Low, commuter	Moderate	Moderate to High	High	No
6	Lafayette-101 overpass, view southwest	Low to moderately low	Low, commuter	Brief to moderate	Moderate	Moderate	No

KOP 1—Intersection of the Central Expressway & Lafayette Street

Figure 8.13-4b is a visual simulation of the completed project as seen from KOP 1. From this viewpoint, the power plant is partially screened by the existing substation, transmission towers, and existing trees. Although the power plant can be seen through the substation, there are numerous visual distractions to the driver or viewer. For example, the two tall lattice towers in the foreground on the west side of the street will be taller and more visually dominant than the power plant exhaust stacks behind the substation. In addition, the visual clutter of the substation structures coupled with transmission towers, street signs, transmission poles with lines on both sides of Lafayette Street, and overhead lines crossing Lafayette Street are visually distracting to the driver and draw the driver's attention away from the new power plant.

Due to the visual character of the area, numerous distractions, and the partial screening of the power plant by the existing substation, the development of the power plant will not significantly change the composition or quality of this view. As previously noted, the existing view from this KOP has a low to moderately low visual quality since the view is dominated by numerous visually discordant man-made alterations such as the existing transmission lines and substation. In addition, despite the fact that a large number of viewers will see the power plant from this view, the level of visual interest and visual sensitivity is low. Viewers from this KOP are mostly commuters who are travelling to and from work and who are habituated to seeing industrial architecture in this area, such as the Owens Corning fiberglass insulation manufacturing complex on the southwest corner of Lafayette and Central Expressway. The project will not, therefore, cause a significant adverse impact to visual resources in this location.

KOP 2—Lafayette Street & Duane Avenue

Figure 8.13-5b (KOP 2) is a visual simulation representing the typical view of the project site as seen by a driver traveling south on Lafayette Street, approaching the power plant site. This simulation represents the view of the completed power plant as it will appear after the landscaping had been installed and been growing for ten years.

The existing grove of trees has been removed and the site is immediately visible to the driver passing by the site or turning right at Duane Avenue. The prominent elements in this view are the 33-foot-high Operations Building, 95-foot-high exhaust stacks, and the 62-foot-high cooling tower structure. The project's architectural and landscape design features significantly reduce the potential visual effect of the power plant, however. The installation of a perimeter wall and extensive landscaping in between the screen wall and the street on the eastern portion of the site partially screens the Operations Building and cooling tower structure and softens their visual impact. The perimeter wall reduces the vertical prominence of the buildings and serves as a backdrop for the perimeter landscaping. Only the tops of the exhaust stacks can be seen above the Operations Building. All structures will be painted non-reflective, neutral colors to be as unobtrusive as possible and blend with adjacent buildings. The architectural detailing of the walls of the Operations Building and horizontal bands on the cooling towers and cooling tower structure further reduces their visual impact. In addition, the facades of the buildings and structures serve as a backdrop for the street trees along Duane Avenue and Lafayette Street.

The wall and plantings will greatly reduce the potential visual impact of the power plant in this location, which stems from the size of the structures and their visual dominance in this location. The neutral colors and architectural design of the facades of the Operations Building and the cooling tower structure create interest and reduce their visual impact. The 8-foot-high perimeter wall and landscaping around the eastern portion of the power plant partially screens the Operations Building and softens the visual impact of all structures seen in this view. Though the cooling towers will appear somewhat massive and visually dominant in this view, they are consistent with the scale and type of other structures in the industrial corridor. At this location, they serve to block views of the HRSGs and stacks, which are the most discordant elements of the power plant.

The existing viewshed quality is low to moderately low, due to the Kifer Receiving Station, transmission lines, and other features. Viewer sensitivity here is low, since the viewers are mostly commuters accustomed to an urban industrial landscape; and the duration of view is low, since Lafayette turns quickly south again, away from the line of sight to the project. For these reasons, the project will not cause a significant adverse impact to visual resources from this location.

KOP 3—1425 Laurelwood Drive

Figure 8.13-6b (KOP 3) is a visual simulation that best represents the typical view of the power plant as seen by a viewer in the residential complex nearest to the site. Tenants who live in the complex as well as drivers who travel along Laurelwood Road will view the site from this KOP. Drivers will only obtain a glimpse of the site as they travel east on the road and they will be less aware of the visual change in the landscape, while tenants will be able to view the site for a longer time as they leave their rooms. Since there are no sidewalks on either side of Laurelwood Road, access to this viewpoint by tenants or viewers walking along the road will be limited and hazardous.

Although the power plant can be seen from Laurelwood Road, there are numerous visual distractions to drivers and residents. Power distribution poles and lines are located along both sides of Laurelwood Road; two 115 kV transmission towers (lattice towers) are on the left side of the road; and several high voltage transmission lines cross over the road and Highway 101. In addition to visual distractions, viewers will only see the project site from a distance (2050 feet).

The project will not change the general composition of the view along Laurelwood Road since the PPP can only be seen from one viewpoint. The existing view quality is low because of the Bayshore Freeway and disparate industrial buildings. The viewers are few in number, though some are residential viewers, considered sensitive viewers. At present, the view has a strong horizontal composition created by the long row of industrial buildings with some openings. However, careful detailing and siting of the buildings and structures coupled with textured facades and use of neutral colors will significantly reduce the visual impact of the project and enable the power plant to visually blend in with the background. The project will thus not substantially degrade the existing visual character of the industrial development along Highway 101 or have an adverse effect on the visual quality of this view. For these reasons, the project will not cause a significant adverse impact to visual resources to this location.

KOP 4—Bayshore Freeway (Highway 101)

Figure 8.13-7b (KOP 4) was selected because it represents the typical view of the power plant as seen by a driver traveling at a high speed southeast on Highway 101. This viewpoint is from the lane farthest south, approximately 1,000 feet from the site. Most of the power plant is screened by existing trees and large industrial buildings. The most prominent elements are the exhaust stacks, steam generator and housings, superstructure, exhaust ducts from gas combustion generators, and the cooling tower structure. Most of the cooling tower structure, the combustion turbine generators, and the switchyard are screened from view.

Despite the fact that many drivers on Highway 101 will see the project site, they will only have a very brief glimpse from one viewpoint, and therefore the view of the project site should not make a significant and lasting impression. Most of the drivers who travel north or south on Highway 101 are conditioned to seeing industrial facilities in this area along the freeway and their sensitivity to changes in the landscape will be low to moderate. In addition, there are many visual distractions in the view such as redwood trees, tall lattice towers, many overhead lines, and light poles in the foreground.

The view quality from this KOP is low to moderately low, due to the variety of industrial buildings lining the freeway, and the project site is partially screened from view by a chain-link fence. There are numerous visual distractions and the project site is only seen for instant. Based on these factors, the project will not degrade the existing visual character of industrial development along the freeway or significantly change the composition of the view, which will continue to have a visual quality that is low

to moderately low. For these reasons, the project will not cause a significant adverse impact to visual resources to this location.

KOP 5—Raymond Street

Figure 8.13-8b (KOP 5) is a visual simulation of the view of the power plant as seen by a driver traveling east on Raymond Street nearing the intersection with Space Park Drive. This is the only view of the power plant as seen from the industrial park west of the site. The viewpoint is 350 feet northwest of the site and the power plant is probably more visually dominant from this KOP than any other. Most of the power plant is visible at close range without any obstructions or visual distractions. The existing three-story communications building, immediately west of the site, blocks views of the switchyard and partially screens views of the steam generator, generator ducts and casings, superstructure, and exhaust stacks.

Despite the fact that the power plant will be visually prominent from this viewpoint, very few drivers will view the site from this location. There are some buildings on Raymond Street with a view to the project site. Several design elements will be incorporated into the design to reduce the visual impact of the power plant and enable it to be compatible with surrounding buildings. The new 25-foot-high sound wall along the north side of the site partially screens the cooling tower structure and gas combustion generator and rotor housing, while the 15-foot-high sound wall along the west side of the site partially screens the switchyard, gas combustion generator, and HRSGs. The power plant structures, tubular steel towers, and the switchyard will be a neutral color to visually complement each other and blend with surrounding buildings.

The project site has a low to moderately low visual quality because of numerous visually discordant man-made structures such as distribution poles and lines, transmission towers, wooden training poles, and construction debris. Extensive visual clutter will be removed as a result of power plant construction, however. The existing 115 kV lattice transmission tower will be replaced with a tubular steel tower, numerous wood training, distribution, and transmission poles and lines will be removed, and an existing tubular steel transmission tower in the parking lot will be relocated to the north of the new switchyard. In addition, six overhead 115 conductors will be installed underground, from Kifer Receiving Station to the new take-off transmission tower, at the northwest corner of the site. The view from this KOP will remain at a low to moderately low visual quality.

Construction of the project will add a large structure with some visual dominance to this scene. This structure will blend in reasonably well with the existing industrial landscape, however, and will be seen by few viewers who are commuters accustomed to seeing similar constructions in the industrial area. For these reasons, the project will not cause a significant adverse impact to visual resources at this location.

KOP 6—Lafayette Street Overpass to Highway 101, Southbound

Figure 8.13-9b (KOP 6) is a visual simulation representing the typical view of the power plant, as seen by drivers traveling south on the Lafayette Street overpass to Highway 101. The prominent elements in this view are the operations building, steam turbine, cooling tower structure and the exhaust stacks. Although the cooling tower structure will appear somewhat massive and visually dominant, in this view it is consistent with the scale and block-like form of the other existing buildings in the industrial corridor. The cooling tower structure blocks views of most of the visually discordant elements of the power plant on the western portion of the site. The switchyard, cable tray structure, HRSG, gas combustion turbine generators, and associated equipment are not visible.

Despite the fact that the driver is able to obtain a panoramic view of a large portion of the power plant, from an elevated viewpoint, the project's architectural and landscape design features significantly reduce the visibility of the project. The low profile, block-like design of the operations building with walls painted a neutral color visually blends with the mini-storage units, in the foreground. All of the buildings, structures, equipment and walls will have a neutral color to blend with each other as well as surrounding industrial buildings. The horizontal bands on the walls of the cooling tower structure break up the expansiveness of the façade and the tapered design and two-tone colors of the top of the cooling tower turbines reduce their visual dominance. The exhaust stacks will be a non-reflective light color to blend with surrounding equipment. In addition, the evergreen street trees along Duane Avenue and Lafayette Street will soften the visual impact of the screening walls and operations building and cooling tower structure and create a horizontal band of green color visually separating the power plant from the mini-storage complex, in the foreground.

The relocated 60 kV transmission line with wooden poles will match and visually blend in with existing transmission towers and lines in the background. Lines will tend to fade or disappear into the sky backdrop and will only be visible for a limited time, when natural lighting conditions accentuate them.

The existing viewshed quality is low to moderately low, due to the low scenic value of the landscape, numerous visually discordant man-made elements and domination of these elements in the landscape. Existing visual clutter such as distribution poles and lines, transmission towers, wood training poles, wood poles with communications lines and construction debris will be removed to build the power plant, significantly improving the viewshed quality. Based on these factors and the fact that the project's architectural and landscape design features will significantly reduce the visibility of the power plant, the project will not degrade the existing visual character of the industrial development or significantly change the composition of the view. For these reasons, the project will not cause a significant adverse impact to visual resources at this location.

Visible Plumes

A modeling analysis of the potential for visible plumes from the PPP cooling tower and HRSG stack is presented in Appendix 8.1-J. The modeling analysis, however, assumed a conventional (non-plume-abated) cooling tower, and therefore overstate the potential for visible plumes. A plume-abated cooling tower would be constructed at the PPP. The plume-abated cooling tower would be designed to prevent the formation of visible plumes under all but the most extreme meteorological conditions.

According to the visible plume analysis analysis, no visible plumes will be seen emanating from PPP HRSG exhaust stacks under most circumstances. However, on a few occasions during the year when temperatures are extremely low and humidity is extremely high, very wispy plumes coming from the stacks may be visible. The times when HRSG plumes are most likely to occur will tend to be at night and in the early morning hours or during rain or fog, when they are least likely to be visible.

Light and Glare

The lighting impact on visual conditions during hours of darkness will be very limited. As indicated previously, some night lighting will be required for operational safety and security. High illumination areas not occupied on a regular basis will be provided with switches or motion detectors to light these areas only when occupied. At times when lights are turned on, the lighting level will be limited to that required for personal safety, will not be highly visible off-site, and will not produce off-site glare effects. The off-site visibility and potential glare of the lighting will be restricted by specification of non-glare fixtures, and placement of lights to direct illumination into only those areas where it is needed. The high

acoustical walls along the north and west sides of the site and existing substation to the south will help shield lighting and prevent dispersal onto adjacent properties. In addition, minimum landscape screening along the east side of the site will further reduce the visibility of facility night lighting, particularly in views from Lafayette Street and Duane Avenue.

8.13.2.5 Construction Laydown and Parking Areas

The first laydown area is approximately 1.5 acres available at the existing Kifer Receiving Station, on the receiving station property, just north of Comstock Street. Although vehicles, equipment, and stored materials may be visible to a limited degree from Comstock Street, the activities in the laydown areas will have relatively little effect on the overall character and quality of the industrial area in which it is located. For example, drivers traveling west on Comstock Street will not be able to see the laydown area from the street. Their focus will be on negotiating the sharp left turn in the road and the attractive street tree planting on the left side of the street. Drivers traveling east on Comstock Street will have to negotiate a quick left and then a quick right turn in the road. Drivers will only have a glimpse of the site as they negotiate the turns.

The second laydown area is 0.4 acres of vacant land within the boundaries of Scott Receiving Station, on Space Park Drive approximately 0.25 miles west of the Pico project site. This land is slated for Scott Receiving Station expansion and is currently graveled and paved.

The third laydown site is a 0.4-acre area located at the City of Santa Clara maintenance yard, at the northwest corner of Lafayette Street and Comstock Street. Existing buildings and fencing along Comstock Street will visually screen the laydown area from view.

Another area that will be used for storage is a 1.9-acre vacant lot immediately south of the SVP Brokaw Substation. This lot is visible only from a distance from any public thoroughfare, since it is bordered on the east by the Federal Express terminal, on the north by the Costco department store, on the south by the Union Pacific railroad tracks, and on the west by the City's water storage tank. The lot is visible from the rear of apartment buildings located south of the Union Pacific railroad tracks, and from the De La Cruz overpass to the railroad tracks.

Viewer sensitivity is low at the first three sites discussed above. The site adjacent to the Brokaw Substation can be viewed from the rear of apartment buildings south of the site; however, quality of this view is already low. The view of the site from these apartments is across two sets of railroad tracks and a chain-link fence and also includes a substation, water storage tank, overpass, and Federal Express truck terminal. Due to the low level of viewer sensitivity at the first three sites, the minor level of visual change at all four sites, the limited time period involved, and the fact that the sites will be restored to their previous condition at the end of the construction period, the project use of the four construction laydown areas will not create significant adverse visual impacts.

8.13.3 Impact Significance

The CEQA Guidelines define a “significant effect” on the environment to mean a “substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including objects of historic or aesthetic significance” (14 CCR, § 15382). The five questions related to aesthetics that are posed for lead agencies and the answers to them for the PPP are:

- 1. Would the project have a substantial adverse effect on a scenic vista?*

No. There are no developed or officially designated scenic vista areas in or near the project viewshed. The landscape is flat in all directions for several miles with no outstanding visual features.

- 2 *Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

No. None of the project facilities fall within the boundaries or viewshed of a state scenic highway or other important scenic resource.

- 3 *Would the project substantially degrade the existing visual character or quality of the site and its surroundings?*

No. The project site does not contain any special aesthetic resources and the surroundings have a low to moderately low level of visual quality. Since the project will be carefully designed and landscaped, the changes brought about by the project will not degrade the existing character and quality of the site or the surrounding industrial area.

Since the site is located within an industrial corridor and surrounded by industrial buildings, the project will not have a substantial effect on the visual quality and character of views from streets and properties in the industrial area around it.

Although the project will be visible in the open views from Lafayette Street to the east and from Raymond Street to the west, and drivers on Duane Avenue and Highway 101 will have glimpses of the project from different points, the project will not have a substantial adverse effect on the character and quality of views from these areas.

- 4 *Would the project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?*

No. As described in Section 8.13.2.4, project light fixtures will be restricted to areas required for safety, security, and operations; lighting will be directed on-site; lighting will be shielded from public view; and non-glare fixtures and use of switches, sensors, and timers to minimize the time that lights not needed for safety and security are on will be specified. High walls along the west, north, and northeast side of the power plant will significantly reduce off-site visibility of project lighting.

Off-site visibility of lighting will be further reduced by the perimeter wall and landscaping around the eastern portion of the power plant, especially views of the lower elements of the project. With these measures, lighting associated with the project will not pose a hazard or adversely affect day or nighttime views toward the site. As a consequence, the impacts of the project visual effects related to lighting will be less than significant.

- 5 *Would the project conflict with any applicable land use plan, policy, or regulation (including, but not limited to a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an aesthetic effect?*

No. As documented in the LORS analysis in Section 8.13.5, the project will be in conformance with the applicable implementing policies, ordinances, or other regulations specifically related to visual resources identified in the City of Santa Clara General Plan and Santa Clara Zoning Ordinance provisions that pertain to this area.

8.13.4 Cumulative Impacts

At present, there are no projects of any significant size or potential visual impact that are in the final planning or approval process for sites in the immediate vicinity of the PPP facilities. As a consequence, it is reasonably foreseeable that there will be no development of new facilities whose visual effects, when combined with those of the PPP, will constitute significant impacts on visual resources under the CEQA guidelines.

8.13.5 Mitigation Measures

The project will not cause significant adverse impacts to visual resources, so mitigation measures are not necessary. However, the following design features have been incorporated into the project plan to enhance the visual appearance of the power plant and associated facilities:

Careful site planning and landscape design, including the following:

- The major structures have been located on the western portion of the site that is partially concealed by surrounding industrial buildings and the existing substation. Placement of the two-story Operations Building, small water tank, and other smaller structures on the eastern edge of the site creates a transition in scale, from low profile in the east to higher structures in the west.
- The cooling tower structure and turbines, as located and oriented on the site, will have the lowest visual impact as seen from key viewpoints that is feasible. The cooling tower structure has been located near the northeast corner of the site, south of an existing three-story building that will block views of the structure from Duane Avenue, Highway 101, and the end of Bassett Street. The turbine buildings are partially screened from view by the cooling tower structure and existing substation structures to the south, and visually conceal the cable tray structure in between the turbines. The switchyard is located at the southwest corner of the site and will be almost completely screened from view by the substation, sound walls, and landscaping.
- Construction of a 25-foot-high sound wall along the north side of the site and a 15-foot-high wall along the west side of the site will help to visually screen the switchyard and turbine structures from view from the surrounding industrial areas and reduce or shield nighttime lighting. Construction of a 20-foot-high wall along the northeast side of the site will screen views of the cooling tower chemical tanks, ammonia storage tank, water pumps, condenser, and steam turbine in addition to softening the visual impact of the Cooling Tower Structure.
- Installation of an 8-foot-high perimeter wall around the eastern portion of the power plant site will screen RO equipment and vehicles in the parking lot from view. It will also soften the visual impact of the water storage tank and Operations Building and provide a backdrop for perimeter landscaping.
- Installation of street trees and landscaping along Duane Avenue and Lafayette Street will further soften the visual appearance of the buildings and tank, as seen by drivers traveling north or south on Lafayette Street. Street trees will complement and blend with existing street trees along Lafayette Street and reduce the visual impact of the cooling tower structure and steam turbine farther west.

Architectural design features include:

- All power plant structures will be painted neutral colors to visually blend with each other and with the surrounding industrial buildings. The turbine structures, cooling tower structure, and switchyard will be painted neutral colors.
- The HRSG housing has an accordion-style “ribbed” appearance and will be painted a soft neutral color to visually blend with the turbine generator housing.
- The operations building has been designed and painted to complement and match the adjacent mini-storage area between the site and Highway 101.

Additional features will include the following:

- Color treatment of walls to blend with the power plant structures and surrounding buildings.
- Minimal signage and construction of project signs using non-glare materials and unobtrusive colors. The design of any signs required by safety regulations will need to conform to the criteria established by those regulations.
- Night lighting will be limited to areas required for safety, security, or operations, and lighting will be installed with shields and directed downward to avoid dispersal of lighting onto adjacent properties. Timers and sensors will be used to minimize the time that lights are on in areas where lighting is not normally needed for safety, security, or operation.
- Directional light fixtures with shields will be used to reduce light scatter and glare.

8.13.5.1 Switchyard and Transmission Line

The following design features have been included in the Engineer’s project design for the PPP switchyard and transmission line:

- The switchyard area has been located where it cannot be seen from Highway 101 or any major arterial streets. Installation of a 15-foot-high wall along the west boundary of the site will significantly reduce the visual impact of the switchyard.
- The bus duct structure, transformers, and circuit breakers will be a light color with a neutral finish to visually blend with light colored buildings surrounding the site.
- The existing 115 kV lattice tower will be replaced with a simpler, trim profile consisting of two tubular steel structure (two poles with a crossarms).
- Numerous wooden transmission towers and lines, mainly used for training purposes, will be removed. This will significantly reduce the visual clutter now apparent at the site.
- Six overhead 115 kV transmission lines that now connect with the Kifer Receiving Station will be installed underground, which would reduce their visual impact. The cable lines will travel underground from the Kifer Receiving Station to the two new tubular steel transmission towers.
- All towers and switchyard structures will be painted a neutral finish to reduce glare and reflection from equipment and enable them to blend with the surrounding background.
- Non-specular conductors will be used and insulators will be non-reflective and non refractive.

8.13.5.2 Pipelines

The following design features have been included as a part of the project to reduce the visual impacts of construction of the natural gas and waste water discharge pipelines:

- Where the pipeline are installed through vegetation-covered areas, new topsoil will be imported to fill the top of trenches, ground surfaces will be restored to their original condition, and any vegetation removed during the construction process will be replaced.
- All piles of soil, broken-up concrete and asphalt paving, as well as all other debris resulting from trenching along the streets will be removed from the area, and the area will be restored to original conditions.
- After piping is installed and trenches are backfilled, streets will be re-paved and re-striped to conform to existing conditions.

8.13.6 Laws, Ordinances, Regulations, And Standards

This section describes the laws, ordinances, regulations, or standards relevant to the visual resource issues associated with the PPP (Table 8.13-4). No federal, state, or regional LORS are known that will apply to the project visual resource issues. However, visual resource and urban design concerns pertinent to the project are addressed in the City of Santa Clara General Plan and Zoning Ordinance.

Table 8.13-4. Laws, ordinances, regulations, and standards applicable to PPP visual resources.

Document	Applicability	AFC Section	Agency/Contact
Santa Clara General Plan	Sets out policies for land use, circulation, community facilities, and environmental resource management for the City. Includes chapter 5 that specifically addresses environmental quality issues.	8.13.6.1	City of Santa Clara Planning Division Kevin Riley, Principal Planner Jenny Lee, Associate Planner 1500 Warburton Ave. Santa Clara, CA 95050 (408) 615-2450
Santa Clara Zoning Ordinance	Establishes classes of zoning districts governing the use of land and placement of buildings and improvements. Includes setback and landscaping requirements.	8.13.6.2	City of Santa Clara Planning Dept. John La Frank, Zoning Administrator 1500 Warburton Avenue Santa Clara, CA 95050 (408) 615-2521
Architectural Design Guidelines	Establishes general design guidelines for site planning, architecture landscaping, lighting & signing for all projects. It also establishes specific design standards for projects within each zoning district	8.13.6.3	City of Santa Clara Planning Dept. Kevin Riley, Principal Planner 1500 Warburton Avenue Santa Clara, CA 95050 (408)247-2857
Street Tree Ordinance (Chapter 30)	Defines “City Trees”, “Protected Trees”, “Heritage Trees”, Procedures for removal or planting of street trees and penalties for removal without City approval.	8.13.6.4	Santa Clara County Streets Dept. Ron Janzing, Arborist 1700 Walsh Avenue Santa Clara, CA 95050 (408) 615-3080

As discussed in Section 8.6, Land Use, the PPP is located within the boundaries of the City of Santa Clara and subject to planning and zoning requirements, architectural guidelines, and street tree ordinance requirements.

The City will require some type of visual screening around sides of the power plant, adjacent to streets, as part of the design review process. This may require a perimeter wall as well as landscaping. The City's architectural standards require "prefabricated and textured masonry fences (walls) to mitigate noise, views and other impacts at an appropriate height to accomplish the task for which they are intended". "Plantings will be required at the foundation of a structure (wall or fence) to soften the transition from the surrounding ground to the vertical plane of the structure." Visual screening, landscaping, and setback requirements only pertain to the eastern portion of the power plant, adjacent to existing streets. The setbacks in a Public/Quasi-Public zone are only 10 feet for side yards (Lafayette Street), and only 15 feet for front yards (Duane Avenue) and rear yards. In addition to the setbacks, a 6- to 10-foot right-of-way is required along Duane Avenue and Lafayette Street (personal communications: Kevin Riley, Senior Planner, City of Santa Clara Planning Department, Santa Clara, CA, June 19, 2002; and Keith Boyle, Principal Planner, Santa Clara Planning Department, San Jose, CA, July 15, 2002).

8.13.6.1 City of Santa Clara General Plan

Chapter 5 of the Santa Clara General Plan addresses the Environmental Quality Element. Specifically: Section 5.3, Flora and Fauna; Section 5.10, Open Space; and Section 5.12, Goals. Chapter 5 discusses the changes to the natural environment through urbanization, loss of native vegetation and wildlife, and increasing noise, air, and water pollution due to development. It stresses the importance of effectively protecting environmental resources in the future. Although Chapter 5 does not specifically address industrial development or the Industrial Corridor as having design issues or being subject to specific requirements, all three of these sections relate to construction of the power plant.

Section 5.3 discusses the importance of preserving existing heritage trees, and installing street trees to provide beauty and unify the "face of the street" where there are diverse functions or facades. Several mature trees will be removed in order to construct the power plant; however, none of the trees are "Heritage" trees. Street trees will be planted along the Lafayette Street and Duane Avenue frontages to meet the City guidelines.

Section 5.10 discusses the importance of preserving existing "Open Space" corridors and constructing additional parks. The eastern portion of the power plant site was a City open space site where many City functions were held in the past. However, it appears it has not been maintained over the years and native grasses and shrub-like trees have grown up and taken over the area. Construction of the power plant project and installation of significant perimeter landscaping around the eastern portion of the site will significantly improve the visual appearance of this area.

Goals and policies of the General Plan are discussed in Section 5.11. One of these goals is to improve the physical environment of the City by continuing the Street Tree Program, develop a tree protection ordinance, require landscaping for all developments (especially along street frontages), and promote water conservation through building requirements, landscape design guidelines, and other City wide programs. The site planing and architectural design of the power plant structures meets this goal, as will installation of drought tolerant landscaping along Lafayette Street and Duane Avenue.

8.13.6.2 Santa Clara Zoning Ordinance

Table 8.13-5 presents an analysis of PPP conformance with the Santa Clara Zoning Ordinance.

8.13.6.3 Architectural Committee Policies/Community Design Guidelines

Table 8.13-6 presents an analysis of PPP conformance with the Santa Clara Architectural Committee's policies and community design guidelines.

Table 8.13-5. Consistency with the Santa Clara Zoning Ordinance.

Provision	Consistency
26-5,6 Lot Area & Lot Width	
The minimum lot area for public and quasi-public facilities shall be 10,000 square feet.	The project site is over 124,000 square feet in size and is over 240 feet in width; therefore the power plant project meets the Zoning Ordinance requirements.
The minimum lot width shall be not less than 80 feet.	
26-7 Height Limit & Building Coverage	
For industrial buildings in a Public or Quasi-Public Zone the maximum height and building coverage shall not exceed that allowed in the most restrictive zone abutting this zone. Heavy Industrial Zone; Article 25-7 the maximum height is 70 feet Article 25-11; there is no maximum coverage.	Santa Clara Zoning Ordinance – Article 32, Special Height Regulations. a) Subject to any provision of the law, the height limitations contained in the schedule of the district regulations do not apply to spires, belfries, cupolas, antennas, water tanks, ventilators, chimneys or other mechanical appurtenances usually required to be placed above the roof level and not intended for human occupancy or to be used for any commercial or advertising purposes. Although the exhaust stacks will be 95 feet high and exceed the 70 foot height limit, they are exempt from the height limit requirement.
26-13 Additional development Standards.	
<i>Fencing</i>	
A solid fence at least 6 feet high shall be required when any surface parking area is established abutting residentially zoned property.	Solid concrete walls over 6 feet high will be installed around all sides of the property; therefore, the project conforms to the fencing requirement.
<i>Landscaped buffer</i>	
The ordinance requires installation of permanently maintained landscaping, with an irrigation system, adjacent to any residential area-minimum width 5 feet.	Landscape requirements pertain only to streetside landscaping along Duane Avenue and Lafayette Street. The landscape frontage along Lafayette Street will be approximately 20 feet wide, while the landscape frontage along Duane Street will be approximately 30 feet wide. An automatic irrigation system will be installed and permanently maintained. The project exceeds the landscape buffer requirements.
<i>Lighting</i>	
Lighting, if provided, shall be directed away from residential areas and public streets.	There are no residential areas abutting the property; however, the project conforms with the Zoning Ordinance because all lighting will directed down and away from adjacent surrounding industrial development.
Source: Santa Clara Zoning Ordinance 1998	

Table 8.13-6. Consistency with the Architectural Guidelines.

Provision	Consistency
<i>Site Plan</i>	
<i>Building Orientation:</i> The standards require that buildings shall be oriented toward the predominate view with the building entry toward the street. Alternatives such as driveway entries or tree lined driveways with special landscape treatment is acceptable.	This regulation pertains only to the Operations Building and not the power plant to the west. The project meets this requirement since the tree-lined main entrance to the project facility is on Duane Avenue.
<i>Circulation</i> The standards require that vehicular circulation be designed to accommodate service and emergency vehicles. Also, that driveways and parking areas be provided with noise buffers.	The power plant has been designed with a loop road providing easy access to and from Duane Avenue. Sound attenuation walls will be installed along the boundaries of the site to reduce sound from project equipment as well as vehicles.
<i>Equipment Location</i> Mechanical and other equipment must be screened from view from public ROW areas and nearby properties.	Most of the power plant equipment will be screened from view from surrounding areas by high perimeter walls along the boundaries of the site, as well as walls around steam generators, transformers, etc.
<i>Fencing</i> The guidelines require pre-fabricated and textured masonry fences, textured on both sides, around the project facilities. Fences shall mitigate views and noise.	Pre-fabricated and textured masonry walls will be installed around the project site to screen project facilities and reduce or eliminate sound from generators, turbines, transformers, and other equipment.
<i>Architecture</i>	
<i>Architectural Style</i> The ordinance requests creative designs to reduce large, blank walls and large roof planes. The architecture style of buildings and equipment should be compatible with existing structures on-site and buildings around the site.	This section is applicable to the Operations Building and the Cooling Tower structure. The Operations Building will be partially concealed by perimeter walls and extensive landscaping, and walls will be broken up by a textured façade. The walls of the Cooling Tower structure will be relieved by horizontal bands.
<i>Bulk, Scale and Height</i> The overall size and intensity of all structures will be reviewed relative to surrounding buildings and large, blank walls, lack of relief, excessive heights and inadequate setback will be reviewed.	Most of the project facilities are smaller than the surrounding industrial buildings, which are large, block-like structures two to three stories high. All large power plant structures will have architectural treatment to insure conformance with these guidelines.
<i>Landscaping</i>	
<i>Building Foundation Planting & Sizes</i> Standards require landscaping within the ROW and around the foundation of walls. Drought tolerant plants and an automatic irrigation system are required. All trees are to be planted at a 15 gallon size and shrubs at a 5 gallon size.	This requirement is applicable to the eastern portion of the power plant site. All landscaping within the ROW and setback areas will be drought tolerant and watered with an automatic irrigation system. Plant material will meet required sizes.

Table 8.13-5. (continued.)

Provision	Consistency
<i>Landscaping - Continued</i>	
<i>Lighting</i>	
All exterior lighting shall be a minimum of one foot-candle and lighting fixtures shall be directed away and shielded from adjacent development. Light fixtures shall not exceed the height of the building or exceed 35 feet.	Night lighting will be limited to security and operations use and will meet the minimum illumination requirements. All lighting will be directed downward and shielded from adjacent development.
<i>Signing</i>	
Standards require that directional signs only direct traffic and not contain advertising and be no greater than 12 inches by 12 inches in size. Locational signs shall only be at focal points, near driveways or at the project entry.	Signing will be minimum and meet all the requirements of this section. Directional signs will be small and strategically placed to meet standards. Building or equipment location signs will also be small and located to meet requirements.

8.13.6.4 Street Tree Ordinance

The Street Tree Ordinance is actually part of the Zoning Ordinance, but is administered by the City Street Department and City Arborist rather than the City Planning Department (Janzing 2002). Chapter 30, Sections 30-1 through 30-7 define “City Trees,” “Heritage Trees,” and “Protected Trees,” as well as rules and regulations for protecting trees, removing trees, and penalties for removing trees without a City approval or permit. It also discusses how to complete applications for tree removal and how and where to plant street trees.

Unlike most City Street Tree Ordinances, the City of Santa Clara does not have a street tree plant list; therefore, the Applicant will plant trees that are drought tolerant and will grow well in the project climatic zone.

Although there are no heritage trees or protected trees on-site, this ordinance affects the proposed project because several mature elm trees will have to be removed to construct the power plant. When large trees are removed, the ordinance requires that they be replaced. The Applicant will meet the requirements of this ordinance by planting trees along Duane Avenue and Lafayette Street.

8.13.7 Permits Required and Permit Schedule

No visual resource permits are required.

8.13.8 References

Boyle, K. 2002. Personal communication between Scott Muller (Foster Wheeler Environmental Corporation) and Keith Boyle (Principal Planner, Santa Clara Planning Department). July 15, 2002.

Buhyoff, G.J., P.A. Miller, J.W. Roach, D. Zhou, and L.G. Fuller. 1994. An AI methodology for Landscape Visual Assessments. *AI Applications* Vol. 8, No 1.

City of Santa Clara. Undated. Architectural Committee Policies, Community Design Guidelines.

———1962. Street Tree Ordinance, Public Trees and Private Trees in Public Places.

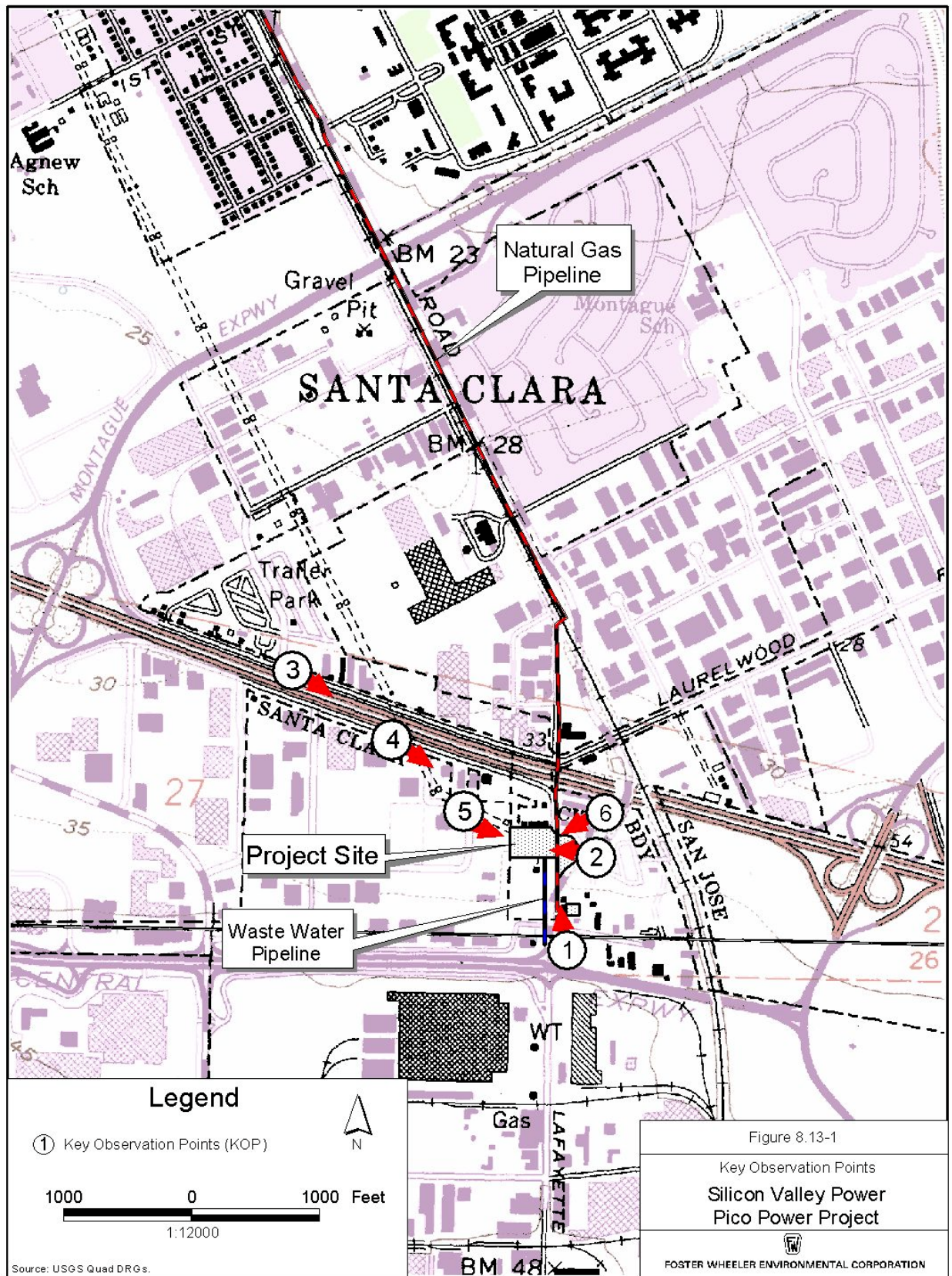
———2002. Santa Clara Zoning Ordinance.

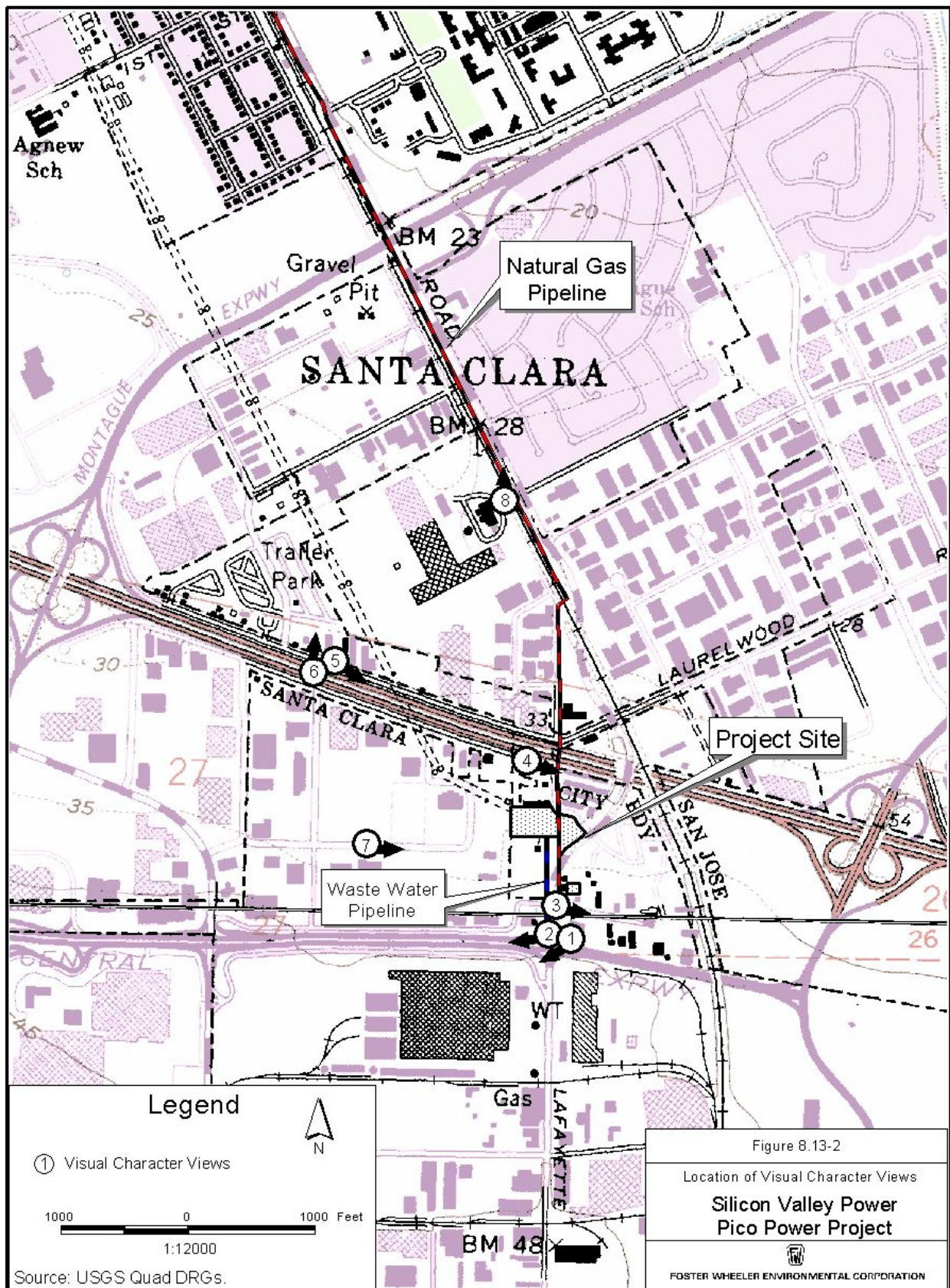
Janzing, R. 2002. Personal communication between Scott Muller (Foster Wheeler Environmental Corporation) and Ron Janzing (City Arborist, City of Santa Clara, Streets Department). June 9, 2002.

Riley, K. 2002. Personal communication between Scott Muller (Foster Wheeler Environmental Corporation) and Kevin Riley (Senior Planner, City of Santa Clara Planning Department). June 19, 2002.

U.S. Department of Agriculture (USDA) Forest Service. 1973. National forest landscape management volume 1.

Willmier, G. 2002. Personal communication between Scott Muller (Foster Wheeler Environmental Corporation) and Gerry Willmier (Traffic Department, Santa Clara County). June 28, 2002.







1. View of the Owens Corning fiberglass plant, looking southwest from Lafayette Street and Central Expressway,



2. View west on Central Expressway from Lafayette Street and Central Expressway,



3. View of Comstock Street from Lafayette Street and Comstock, looking west.



4. View east on Duane Avenue east of Raymond Street

Figure 8.13-3a. Visual character views.



5. View east on Laurelwood Drive east of Thomas Road



6. View north showing the apartments at 1425 Laurelwood



7. View east on Space Park Drive near Scott Receiving Station



8. View north from Lafayette Street near Aldo Avenue

Figure 8.13-3b. Visual character views.

Figures 8.13-4a through 8.13-9b. KOPs with existing views and simulated views.

Figures 8.13-4a through 8.13-9b can be found as a separate PDF file in this folder.